

IN THE CLAIMS:

Please amend Claims 1-12, 14-19, 21, 22, 28, 32, 33, and 35, as indicated below.

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

1. (currently amended) A computer-readable storage medium storing control logic for causing a computer to implement a method of offering a service, described in a service description document, in a communication network, ~~said~~ wherein the method comprising includes:

extracting, from the service description document, a first abstract part adapted to describe at least one message exchanged over the communication network when the service is implemented, wherein the first abstract part includes a description of abstract constraints associated with a binary multimedia document;

extracting, from the service description document, a second concrete part adapted to describe information relating to transmission of the messages over the communication network;

extracting, from the binary multimedia document, a content description of the binary multimedia document, wherein characteristics of the extracted content description are dependent ~~depending~~ on the abstract constraints ~~associated with the multimedia~~ extracted from the service description document;

comparing the content description and the description of the abstract constraints extracted from the service description document; and

transmitting an error message, if the content description does not satisfy the abstract constraints.

2. (currently amended) A computer-readable storage medium according to claim 1, wherein ~~said~~ the description of the abstract constraints is represented using ~~the~~ semantics of a description language of a content of the binary multimedia document.

3. (currently amended) A computer-readable storage medium according to one of Claims 1 ~~[[to]]~~ and 2, wherein ~~said~~ the description of abstract constraints is represented using ~~the~~ semantics defined by a Moving Picture Experts Group 7 (MPEG7) standard.

4. (currently amended) A computer-readable storage medium according to one of Claims 1 ~~[[to]]~~ and 2, wherein ~~said~~ the description of abstract constraints is represented ~~in a~~ mark-up language of the Extensible Mark-up Language (XML) type.

5. (currently amended) A computer-readable medium according to one of Claims 1 ~~[[to]]~~ and 2, ~~characterized in that said~~ wherein the description of abstract constraints is represented in a schema language~~[[,]]~~ and includes tags defined using ~~the~~ semantics of a Moving Picture Experts Group 7 (MPEG7) standard.

6. (currently amended) A computer-readable storage medium according to one of Claims 1 ~~[[to]]~~ and 2, wherein ~~said~~ the description of abstract constraints is represented in a

description language of a content of the binary multimedia document, such that tags ~~being~~ are adapted to integrate directly or by reference attributes represented in a schema mark-up language.

7. (currently amended) A computer-readable storage medium in accordance with Claim 6, wherein the description language of the content of the binary multimedia document is defined according to a Moving Picture Experts Group 7 (MPEG7) standard.

8. (currently amended) A computer-readable storage medium according to one of Claims 1 ~~[[to]]~~ and 2, wherein ~~said~~ the description of abstract constraints is represented in a schema language adapted to define a set of minimum constraints.

9. (currently amended) A computer-readable storage medium according to one of Claims 1 ~~[[to]]~~ and 2, wherein ~~said~~ the description of abstract constraints is inserted in a sub-part of ~~said~~ the first abstract part~~[[,]]~~ and is adapted to describe an abstract structure of ~~the~~ messages exchanged.

10. (currently amended) A computer-readable storage medium according to Claim 9, wherein ~~said~~ the first abstract part ~~comprises~~ includes a second sub-part adapted to declare at least one elementary message pointing to ~~said~~ the description of the abstract constraints.

11. (currently amended) A computer-readable storage medium according to

Claim 10, wherein the at least one elementary message is associated with an attribute adapted to specify that the at least one elementary message ~~comprises~~ is of a binary multimedia content type.

12. (currently amended) A method of producing a request for a service offered by a server in a communication network, wherein the service is described in a service description document, the method comprising:

reading the service description document;

selecting a first abstract part of the service description document, wherein the first abstract part is adapted to describe at least one message exchanged over the communication network when an operation associated with the service is implemented;

extracting a description of abstract constraints, wherein the description of the abstract constraints is associated with a binary multimedia document;

selecting the binary multimedia document according to the description of the abstract constraints;

producing a request for the server in the communication network, wherein the request includes the binary multimedia document selected;

extracting, from the binary multimedia document, a content description of the binary multimedia document, wherein characteristics of the extracted content description are dependent ~~depending~~ on the abstract constraints ~~associated with the multimedia~~ extracted from the service description document;

comparing the content description and the description of the abstract constraints

extracted from the service description document; and

transmitting the request to the server, if the content description satisfies the abstract constraints.

13. (currently amended) A method of validating a binary multimedia document when a service offered by a server in a communication network is implemented, wherein the service is associated with a service description document, the method comprising:

acquiring the binary multimedia document;

extracting a description of abstract constraints associated with ~~[[a]]~~ the binary multimedia document from the service description document;

extracting, from the binary multimedia document, a content description of the binary multimedia document, wherein characteristics of the extracted content description are dependent ~~depending~~ on the abstract constraints ~~associated with the multimedia~~ extracted from the service description document;

comparing the content description and the description of the abstract constraints extracted from the service description document; and

implementing the service on the binary multimedia document, if the content description satisfies the abstract constraints.

14. (currently amended) The method according to claim 13, wherein the description of the abstract constraints is represented in a language describing a content of the binary multimedia document.

15. (currently amended) The method according to one of claims 13 ~~or~~ and 14, wherein ~~the~~ a language describing a content of the binary multimedia document is defined under a Moving Picture Experts Group 7 (MPEG-7) standard.

16. (currently amended) The method according to one of claims 13 ~~or~~ and 14, wherein, ~~at said~~ in the extracting of the content description ~~extraction step~~, a Moving Picture Experts Group 7 (MPEG-7) description of the binary multimedia document inserted in the binary multimedia document is extracted.

17. (currently amended) The method according to one of claims 13 ~~or~~ and 14, wherein the method is implemented during ~~a step of selecting~~ selection of the binary multimedia document to be inserted in a message exchanged during implementation of the service offered by the server in the communication network.

18. (currently amended) The method according to one of claims 13 ~~or~~ and 14, wherein the method is implemented during ~~a step of validating~~ validation of a request received by the server in the communication network for implementing the service ~~described in~~ associated with the service description document.

19. (currently amended) A device for producing a request for a service offered by a server in a communication network, wherein the service is described in a service description

document, the device comprising:

means for reading the service description document;

means for selecting a first abstract part of the service description document,
wherein the first abstract part is adapted to describe at least one message exchanged over the
communication network when an operation associated with the service is implemented;

means for extracting a description of abstract constraints associated with a binary
multimedia document from the service description document;

means for selecting the binary multimedia document according to the description
of the abstract constraints;

means for extracting, from the binary multimedia document, a content description
of the binary multimedia document, wherein characteristics of the extracted content description
are dependent ~~depending~~ on the abstract constraints ~~associated with the multimedia~~ extracted
from the service description document;

means for comparing the content description and the description of the abstract
constraints extracted from the service description document;

means for producing a request for the service offered by the server in the
communication network, if the content description satisfies the abstract constraints, wherein the
request includes the binary multimedia document selected.

20. (previously presented) The device according to claim 19, further comprising:

a microprocessor;

a read only memory adapted to store a program for producing the request for the

service; and

a random access memory including registers adapted to store variables modified during execution of the program.

21. (currently amended) A device for validating a binary multimedia document during implementation of a service offered by a server in a communication network, wherein the service is associated with a service description document, the device comprising:

means for acquiring the binary multimedia document;

means for extracting a description of abstract constraints associated with ~~[[a]]~~ the binary multimedia document from the service description document;

means for extracting, from the binary multimedia document, a content description of the binary multimedia document, wherein characteristics of the extracted content description are dependent ~~depending~~ on the abstract constraints ~~associated with the multimedia extracted from the service description~~ document; and

means for comparing the content description and the description of the abstract constraints extracted from the service description document.

22. (currently amended) The device according to claim 21, further comprising:

a microprocessor;

a read only memory adapted to store a program for validating the binary multimedia document; and

a random access memory including registers adapted to store variables modified

during execution of the program.

23. - 27. (canceled).

28. (currently amended) A computer-readable storage medium storing control logic for causing a computer to implement a method of validating a binary multimedia document in accordance with one of claims 13 ~~to~~ and 14.

29. (previously presented) A computer-readable storage medium storing control logic for causing a computer to implement a method of producing a request according to claim 12.

30. - 31. (canceled).

32. (currently amended) The method according to claim 5, wherein the abstract constraints are represented in [[a]] an XML-Schema language or in a Relax-NG language.

33. (currently amended) The method according to claim 6, wherein the attributes are represented in [[a]] an XML-Schema language.

34. (previously presented) The method according to claim 8, wherein the description of the abstract constraints is represented in a Schematron language.

35. (currently amended) The method according to claim 13, further comprising:

extracting a Moving Picture Experts Group 7 (MPEG7) description associated with [[a]] the binary multimedia document;

comparing said MPEG7 description and the description of the abstract constraints;

reiterating the extracting ~~step~~ of the MPEG7 description, if a characteristic of the MPEG7 description is missing;

extracting ~~said~~ the characteristic from the binary multimedia document; and

adding ~~said~~ the characteristic to the MPEG7 description.